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09/577,071	05/23/2000	Gabriel Jakobson	99-852	4170

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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/577,071

Applicant(s)

JAKOBSON ET AL.

Examiner

Li B. Zhen

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16, 17, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,761,502 to Jacobs.

As to claim 16, Jacobs teaches (column 2, lines 36 – 46; column 5, lines 55 – 65; column 7, line 39 – column 8, line 2; column 9, lines 38 – 63) correlating network event messages on a computer network (correlating network events across many different network domains) comprising a message parsing service (network event parser 314, Fig. 3), an event correlation service (expert system 326, Fig. 3), and a knowledge database (Network Topology Object Database 318, Fig. 3), the method comprising the steps of:

receiving a raw event at the message parsing service (events are collected from Network 202 and input to a Network Event Parser 314, Fig. 3);

parsing the raw event by the message parsing service (Network Event Parser 314 parses and formats the data, Fig. 3);

transmitting the parsed event to the event correlation service (Expert System 326), utilizing data stored in the knowledge database (Network Topology Object Database 318) to derive an event from the parsed event (Expert System 326 reads

state changes from Network Topology Object Database 318...Expert System 326 applies appropriate rules that correlate various events and infer possible root causes of events to produce an assessment of the events...the assessment...is provided to Presentation Manager 216, Fig. 3); and

transmitting the derived event to one of a plurality of operator workstations (Presentation Manager 216 receives data from Expert System 326...these data represent updated states of Network 202, network events, network performance, correlation of events, inferred causes of events, impacts of events, and recommended actions...Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

As to claim 32, this is an apparatus claim that corresponds to method claim 16; note the rejection to claim 16 above, which also meets this apparatus claim.

As to claim 17, Jacobs teaches (column 9, lines 38 – 62) transmitting the derived event from the event correlation service to a network management service and transmitting the derived event from the network management service to one of a plurality of operator workstations (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2126

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 7, 18, 19, 22, 25, 28, 29, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs in view of U.S. Patent No. 5,721,825 to Lawson.

As to claim 28, Jacobs teaches (column 2, lines 36 – 46; column 5, lines 55 – 65; column 7, line 39 – column 8, line 2; column 9, lines 38 – 63) correlating network event messages on a computer network (correlating network events across many different network domains) comprising a message parsing service (network event parser 314, Fig. 3), an event notification service (state management), and a network management service (Network Management Workstation 220, Fig. 3) the method comprising the steps of:

receiving a raw event from an external computer network (such events include Network Alarms 306 and Network Outage Information 308...this information is collected from Network 202, Fig. 3);

transmitting the raw event to the message parsing service (events are collected from Network 202 and input to a Network Event Parser 314, Fig. 3);

parsing the raw event by the message parsing service (Network Event Parser 314 parses and formats the data, Fig. 3);

transmitting the parsed event to the network management service (Presentation Manager 216 receives data from Expert System 326...Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3). Jacobs teaches correlating network events across many different network domains but does not specify a network mediation service.

However, Lawson teaches (column 4, lines 23 – 32; column 11, lines 37 – 56) globalizing event notifications in a distributed computing environment that includes network mediation service (network connection 52 represents an example of the networking means for interconnect servers, Fig. 3).

Since, both Jacobs and Lawson teaches event distribution across a network, it would have been obvious the invention of Jacobs would also include network mediation service in order for the network elements to communicate across different network domains.

As to claim 18, this is a combination of claim 28 with additional limitations; please see the rejection to claim 28 above. As to the additional limitations, Jacobs teaches (column 2, lines 36 – 46; column 5, lines 55 – 65; column 7, line 39 – column 8, line 2; column 9, lines 38 – 63) transmitting the parsed event to the event correlation service (Expert System 326) utilizing data stored in the knowledge database (Network Topology Object Database 318) to derive an event from the parsed event (Expert System 326 reads state changes from Network Topology Object Database 318... Expert System 326 applies appropriate rules that correlate various events and infer possible root causes of events to produce an assessment of the events... the assessment... is provided to Presentation Manager 216, Fig. 3) and transmitting the derived event to one of a plurality of operator workstations (Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

As to claim 33, this is a system claim that corresponds to method claim 18; note the rejection to claim 18 above, which also meet this system claim.

As to claim 1, Jacobs teaches (column 2, lines 36 – 46; column 5, lines 55 – 65; column 7, line 39 – column 8, line 2; column 9, lines 5 – 25 and 38 – 63; column 11, lines 9 – 40) correlating network event messages on a computer network (correlating network events across many different network domains) comprising:

at least one computer (computer system 1302, Fig. 13) comprising a processor (processor 1304, Fig. 13) and memory (main memory 1308, Fig. 13);

a network management service (Network Management Workstation 220, Fig. 3),  
an event notification service (state management); and

a message parsing service (network event parser 314, Fig. 3) adapted to receive a raw event from the event notification service, parse the raw event, and transmit the parsed event to the event notification service (events are collected from Network 202 and input to a Network Event Parser 314... Network Event Parser 314 parses and formats the data, Fig. 3). As to an event correlation service see claim 18 above. As to a network mediation service, see claim 28.

As to claim 29, Jacobs as modified teaches (column 7, line 47 – column 8, line 2; column 9, lines 38 – 63 of Jacobs) transmitting the parsed event from the message parsing service to the event notification service (Network Event Parser 314 parses and formats the data to be uploaded to Network Topology Object Database 318, Fig. 3) and transmitting the parsed event from the event notification service to the network management service (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

As to claim 19, Jacobs as modified teaches (column 7, lines 47 – 63 of Jacobs) transmitting the raw event from the network mediation service to the event notification service and transmitting the raw event from the event notification service to the message parsing service (events include Network Alarms 306 and Network Outage Information 308...this information is collected from Network 202 and input to a Network Event Parser 314, Fig. 3).

As to claim 22, Jacobs as modified teaches (column 7, line 39 – column 8, line 2; column 9, lines 38 – 63 of Jacobs) transmitting the parsed event from the message parsing service to the event notification service (Network Event Parser 314 parses and formats the data to be uploaded to Network Topology Object Database 318, Fig. 3), and transmitting the parsed event from the event notification service to the event correlation service (Expert System 326 reads state changes from Network Topology Object Database 318, Fig. 3).

As to claim 25, Jacobs as modified teaches (column 7, line 47 – column 8, line 2; column 9, lines 5 – 23 and 38 – 63 of Jacobs) transmitting the derived event from the event correlation service to the event notification service (Expert System 326 can also provide a recommendation on corrective action or network controls to Network Topology Object Database 318...the resulting state changes are then provided to Presentation Manager 216 to format for presentation, Fig. 3), transmitting the derived event from the event notification service to the network management service, and transmitting the derived event from the network management service to one of a plurality of operator workstations (Presentation Manager 216 receives data from Expert System 326...these



data represent updated states of Network 202, network events, network performance, correlation of events, inferred causes of events, impacts of events, and recommended actions... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

As to claim 2, Jacobs as modified teaches (column 4, lines 23 – 32; column 11, lines 37 – 56 of Lawson) the network mediation service is adapted to interface with at least one external computer network (network connection 52 represents an example of the networking means for interconnect servers, Fig. 3).

As to claims 3 and 4, Jacobs as modified teaches (column 7, lines 47 – 67 of Jacobs) receiving a raw event at the network mediation service from the external computer network (such events include Network Alarms 306 and Network Outage Information 308...this information is collected from Network 202, Fig. 3), and transmitting the raw event to the message parsing service (events are collected from Network 202 and input to a Network Event Parser 314, Fig. 3);

As to claim 5, Jacobs as modified teaches (column 2, lines 36 – 46; column 5, lines 55 – 65; column 7, line 39 – column 8, line 2; column 9, lines 38 – 63 of Jacobs) transmitting the parsed event to the network management service (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

As to claim 6, Jacobs as modified teaches (column 2, lines 36 – 46; column 5, lines 55 – 65; column 7, line 39 – column 8, line 2; column 9, lines 38 – 63 of Jacobs) the message parsing service is adapted to route the parsed event to the event

Art Unit: 2126

correlation service (Expert System 326, Fig. 3) via the event notification service (Expert System 326 reads state changes from Network Topology Object Database 318, Fig. 3).

As to claim 7, Jacobs as modified teaches (column 9, lines 38 – 62 of Jacobs) the network management service is adapted to interface with a plurality of operator workstations (Presentation Manager 216 provides the formatted data to Network Management Workstation 220, for viewing by network management personnel, Fig. 3).

5. Claims 8 – 15, 20, 21, 23, 24, 26, 27, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs and Lawson in view of U.S. Patent No. 6,477,585 to Cohen.

As to claims 9 and 30, Jacobs as modified teaches (column 7, line 47 – column 8, line 2; column 9, lines 38 – 63 of Jacobs) processing the parsed event and transmitting the processed event to the network management service (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3). Jacobs as modified does not teach an event channel.

However, Cohen teaches managing events in a distributed computing environment (column 2, lines 33 – 50) and event channels (column 5, lines 38 – 61; column 9, lines 39 – 62).

It would have been obvious to apply the teaching of event channels as taught by Cohen to the invention of Jacobs as modified because event channels allow multiple suppliers to communicate with multiple consumers in an asynchronous way (column 1, lines 48 – 50 of Cohen).

As to claims 13 and 31, Jacobs as modified teaches (column 7, line 47 – column 8, line 2; column 9, lines 38 – 63; column 12, lines 8 – 32 of Jacobs) transmitting the processed event from the parsed event to the network management service (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3) and an event filter (state filter, step 410, Fig. 4). As to an event channel, see claim 30 above.

As to claims 12 and 20, Jacobs as modified teaches (column 7, lines 47 – 63 of Jacobs) receiving the raw event and transmitting the raw event to the message parsing service (events include Network Alarms 306 and Network Outage Information 308...this information is collected from Network 202 and input to a Network Event Parser 314, Fig. 3). As to an event channel, see claim 30 above.

As to claim 21, Jacobs as modified teaches (column 7, lines 47 – 63; column 12, lines 8 – 32 of Jacobs) an event filter (state filter, step 410, Fig. 4) and transmitting the raw event to the message parsing service (events include Network Alarms 306 and Network Outage Information 308...this information is collected from Network 202 and input to a Network Event Parser 314, Fig. 3). As to an event channel see claim 30 above.

As to claims 14 and 23, Jacobs as modified teaches (column 7, line 39 – column 8, line 2; column 9, lines 38 – 63 of Jacobs) transmitting the processed to the event correlation service (Expert System 326 reads state changes from Network Topology Object Database 318, Fig. 3). As to an event channel see claim 30 above.

As to claim 24, Jacobs as modified teaches (column 7, line 39 – column 8, line 2; column 9, lines 38 – 63; column 12, lines 8 – 32 of Jacobs) an event filter (state filter, step 410, Fig. 4) transmitting the processed to the event correlation service (Expert System 326 reads state changes from Network Topology Object Database 318, Fig. 3).

As to claims 15 and 26, Jacobs as modified teaches (column 7, line 47 – column 8, line 2; column 9, lines 5 – 23 and 38 – 63 of Jacobs) transmitting the processed event the network management service (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3). As to an event channel see claim 30 above.

As to claim 27, Jacobs as modified teaches (column 7, line 47 – column 8, line 2; column 9, lines 5 – 23 and 38 – 63; column 12, lines 8 – 32 of Jacobs) an event filter (state filter, step 410, Fig. 4), and transmitting the processed event the network management service (Presentation Manager 216 receives data from Expert System 326... Presentation Manager 216 provides the formatted data to Network Management Workstation 220, Fig. 3).

As to claim 10, Jacobs as modified teaches (column 12, lines 8 – 32 of Jacobs) event notification service is further comprised of at least one filter (state filter, step 410, Fig. 4).

As to claim 11, Jacobs as modified teaches (column 11, lines 23 – 36 of Cohen) at least one filter is coupled to at least one of the plurality of event channels (first stage filter for SVC events are the SVC routing destination SVC messages that are routed to EMS will be sent through the EMS event channel).

As to claim 8, Jacobs as modified does not specify transmitting data request from operator workstation.

However, Cohen teaches (column 7, lines 42 – 52) receive data requests from the plurality of operator workstations and transmit the data requests to the event correlation service via the event notification service (event consumer may use the Consumer API to define a new event filter and add it to an event filter group).

It would have been obvious to apply transmitting data request from operator workstation as taught by Cohen to the invention of Jacobs as modified because this allows the plurality of operator workstations to subscribe to new events.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,336,139 to Feridun teaches event correlation in a distributed computing environment.

U.S. Patent No. 6,446,136 to Pohlmann teaches dynamic correlation of events.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (703) 305-3406. The examiner can normally be reached on Mon - Fri, 8am - 4:30pm.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Li B. Zhen  
Examiner  
Art Unit 2126

lbz  
February 7, 2003

  
**ALVIN OBERLEY**  
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